

## REMARKS/ARGUMENTS

### REMARKS

Claims 1-8, 14-24, 30-40, 46-56 and 62-64 are pending in this application. Claims 1, 17, 18, 30, 32, 33, 34, 46, 49, 50 and 62 are currently amended. Claims 18, 34 and 50 are currently amended merely to correct informalities. It is respectfully submitted that support for such amendments is found in the specification, drawings, claims and abstract of the disclosure, as originally filed, and that no new matter has been added.

### CLAIM REJECTIONS UNDER 35 USC 112

Claims 1, 14, 17, 30, 33, 46, 49, 62 and 64 are rejected as being indefinite. Each of claims 1, 14, 17, 30, 33, 46, 49, 62 and 64, as now amended, clearly recites that the relational characteristic comprises a depth relationship or a level relationship or both. The "second record" is not limited to the next record in sequence of a table of records. A first record could be any record and a second record could be any other record that can be related to the first record by a relational characteristic that comprises a depth relationship or a level relationship or both. In the illustrative and non-limiting example of Table 1, any two of the records shown can be related by a relational characteristic that comprises a depth relationship or a level relationship or both. This rejection is overcome.

### CLAIM REJECTIONS UNDER 35 USC 102

Claims 1-4, 8, 14, 16-20, 24, 30, 32-36, 40, 46, 48-52, 56, 62, and 64 are rejected under 35 USC 102(b) as being anticipated by US patent 5,724,577 to

Exley et al. Each of claims 1-4, 8, 14, 16-20, 24, 30, 32-36, 40, 46, 48-52, 56, 62, and 64, as now amended, is allowable over Exley et al. for the reasons that follow. Exley et al. does not disclose each and every element of any of amended claims 1-4, 8, 14, 16-20, 24, 30, 32-36, 40, 46, 48-52, 56, 62, and 64. Claim 1, as now amended, recites selecting a second record by indicating a relational characteristic of the identified record that comprises a depth relationship or a level relationship or both; and modifying the tag, thereby producing a key, based on the relational characteristic and a predetermined numeric mapping of related records. The key corresponds to the second record that is related to the identified record by the relational characteristic. The hierarchical set of the records is indexed only once, thereby selecting the second record within the hierarchical set of records, wherein indexing the hierarchical set of records only once comprises applying the key to the hierarchical set of records, wherein the key comprises a second tag uniquely identifying the second record.

Although not limiting with respect to Applicants' invention, Table 1 at section [0027] of page 6 of Applicant's specification is illustrative of the invention set forth at claim 1. The tags in the left-hand column of Table 1 are determined by the depth and level of a message within a discussion group. These tags are *unique* digital representations of the depth / level combination of each message, because each message has a *unique* depth / level combination within the discussion group. Relationships between messages, e.g., parent-child or parent-grandchild, thus correspond to a predetermined numeric mapping between their tags. That is, the key of a child or grandchild is created as a product of a predetermined numeric mapping from the tag of the parent, or  $\text{key} = \text{tag} \times \text{relationship map}$ .

In stark contrast, Exley et al. disclose at column 3, lines 12-22 to use a time and date stamp to produce a unique key that is linked by pointer fields (col. 2, line 63) to keys of related entries. Two separate time and date stamps corresponding to unique keys of related entries in the system of Exley et al. do not provide or indicate a depth or level relationship. In fact, the time and date of creation of keys or tags of related entries in the Exley et al. system is independent of their depth or level relationship.

Claims 2-4 and 8 are allowable as being dependent from amended claim 1. Claim 17, as now amended, is allowable for the same reasons as amended claim 1. Claims 18-20 and 24 are allowable as being dependent from amended claim 17. Claim 33, as now amended, is allowable for the same reasons as amended claim 1. Claims 34-36 and 40 are allowable as being dependent from amended claim 33. Claim 49, as now amended, is allowable for the same reasons as amended claim 1. Claims 50-52 and 56 are allowable as being dependent from amended claim 49.

Similarly, Claim 14 recites selecting a second record by indicating a relational characteristic of the identified record that comprises a depth relationship or a level relationship or both; modifying the tag based on the relational characteristic and a predetermined numeric mapping of related records; and indexing the hierarchical set of records only once, thereby selecting the second record within the hierarchical set of records, wherein indexing the hierarchical set of records only once comprises applying the modified tag to the hierarchical set of records. Thus amended claim 14 is allowable for substantially the same reasons as amended claim 1.

Claim 16 is allowable as being dependent from amended claim 14. Claim 30 is allowable for the same reasons as claim 14. Claim 32 is allowable as being

dependent from claim 30. Claim 46, as now amended, is allowable for the same reasons as claim 14. Claim 48 is allowable as being dependent on claim 46. Claim 62, as now amended, is allowable for the same reasons as claim 14. Claim 64 is allowable as being dependent on claim 62.

#### CLAIM REJECTIONS UNDER 35 USC 103

Claims 5-7, 15, 21-23, 31, 37-39, 47, 53-55, and 63 are rejected under 35 USC 103(a) as being unpatentable over Exley et al. in view of US patent 6,675,173 to Shadmon. Each of claims 5-7, 15, 21-23, 31, 37-39, 47, 53-55, and 63, as now amended, is allowable over Exley et al. in view of Shadmon for the reasons that follow. Neither Exley et al. nor Shadmon nor any combination thereof teaches or suggests each and every element of any of amended claims 5-7, 15, 21-23, 31, 37-39, 47, 53-55, and 63.

Specifically, each of claims 5-7 is dependent on amended claim 1, and the distinction raised above with respect to claim 1 is neither taught nor suggested by any combination of Exley et al. and Shadmon. Claim 15 is dependent on amended claim 14, and the distinction raised above with respect to claim 14 is neither taught nor suggested by any combination of Exley et al. and Shadmon. Each of claims 21-23 is dependent on amended claim 17, and the distinction raised above with respect to claim 17 is neither taught nor suggested by any combination of Exley et al. and Shadmon. Claim 31 is dependent on amended claim 30, and the distinction raised above with respect to claim 30 is neither taught nor suggested by any combination of Exley et al. and Shadmon. Each of claims 37-39 is dependent on amended claim 33, and the distinction raised above with regard to claim 33 is neither taught nor suggested by any combination of Exley et al. and Shadmon. Claim 47 is dependent on amended claim 46, and the distinction raised above with regard to claim 46 is neither taught nor

suggested by any combination of Exley et al. and Shadmon. Each of claims 53-55 is dependent on amended claim 49, and the distinction raised above with regard to claim 49 is neither taught nor suggested by any combination of Exley et al. and Shadmon. Claim 63 is dependent on amended claim 62, and the distinction raised above with regard to claim 62 is neither taught nor suggested by any combination of Exley et al. and Shadmon.

The Commissioner is authorized to charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 07-1896. A duplicate page is enclosed.

Respectfully submitted,

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